

GREENWorks

Ideas for a Cleaner Environment

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Wood is good, if you burn the right wood the right way

Wood is good, but wood smoke can be harmful to people's health. Wood is the way many New Hampshire residents heat their homes. Other households use wood stoves and fireplaces as supplementary heating sources. Wood is an excellent choice for heating your home; it is a New Hampshire grown energy source. Heating with wood makes sense economically given that New Hampshire is the second most forested state. Buying local wood is also good for our economy. Most energy experts agree that sustainable harvested wood burned to heat homes releases no more greenhouse gases than forest regeneration can re-absorb them. In the lingo of the day, this makes it "carbon neutral." But just as important as the economic and environmental benefit of burning wood is, only burning clean dry wood protects your home and keeps the air that you, your family, and all of us breathe, as healthy as possible.

Today's modern wood stoves burn much more cleanly and efficiently than those sold before 1990. Burning cleanly and efficiently is the key to heating with wood. To many of us the smell of a wood fire is enjoyable and comforting. To people with respiratory or cardiac conditions, it is anything but enjoyable and comforting. The very small particles that make up wood smoke can be inhaled deep into the lungs, collecting in the tiny air sacs where oxygen enters the blood. This can cause breathing difficulties and sometimes permanent lung damage. Inhalation of small particles can increase cardiovascular problems, irritate lungs and eyes, trigger headaches and allergic reactions, and worsen respiratory diseases such as asthma, emphysema, and bronchitis. No one wants to do that to their family or their neighbor!

Pollution from wood stoves is a particular concern in the winter when cold, stagnant air and temperature inversions limit air movement. Communities located in valleys, like Keene, are more strongly affected. As wood burning increases on cold, clear, calm nights, smoke is unable to rise and disperse. Pollutants are trapped and concentrated near the ground, and the small size of the particles allows them to seep into houses through closed doors and windows.

Burning clean, dry hardwood in an energy efficient wood stove helps minimize air pollution. If you live in a valley area, watch weather conditions and pay attention to Air Quality Action Day notifications (see http://www2.des.state.nh.us/airdata/air_quality_forecast.asp for air pollution forecasts in your area). On days when small particle levels are high, and there is stagnant air, if you have alternative heating, avoid burning wood until the winds increase. This will help to keep your wood smoke from affecting people with cardiac or respiratory illness.

Keeping your stove pipe cleaned and good ash management can make your wood burning experience safer for your family as well. Burning wood safely and efficiently will also save you money. See http://extension.unh.edu/Energy/Wood_Burning.html for some great tips on wood burning, stove maintenance and ash management. EPA's Burnwise program provides additional information on types of certified stoves, choosing a wood stove and energy efficiency. The

frequently asked questions section may clarify some of your questions. See
<http://www.epa.gov/burnwise/>

Over the past 25 years that DES has existed as an agency and measured air pollution levels, small particulates from wood stoves and other sources have been declining. This good news is important to remember but in localized valley areas, small particles can still be a health problem. Remember to burn wise because smoke can harm your family's health!

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